



1^{er} Parcial - 1^o de Octubre de 2004 - Soluciones

1^a parte 10 ptos

Pregunta	1	2	3	4	5	6	7	8	9	10
CC 1	c	b	c	c	b	a	b	c	a	b
CC 2	b	c	c	c	a	a	c	b	a	b
CC 3	c	c	a	b	a	c	b	c	c	b

2^a parte 30 ptos

Problema 1	10 ptos	
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```
function desc = descomp(N)
i = 2;
desc = [];
while N ~=1
    while mod(N,i) == 0
        desc = [desc,i];
        N = N/i;
    end
    i = i+1;
end
```

Problema 2	10 ptos	
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a)

```
function y = rep(V)
i = 2;
V = sort(V);
l = length(V);
while i <= l & V(i-1) ~= V(i)
    i = i+1;
end
y = l+1 ~= i;
```

b)

```
function dis = latina (M)
[m,n]=size(M);
repe = 0;
i = 1;
while ~repe & i <=m
    repe = rep(M(i,:));
    i = i+1;
end
j=1;
while ~repe & j <=n
```

```
    repe = rep(M(:,j));  
    j = j+1;  
end  
dis = ~repe;
```

Problema 3 | 10 ptos

```
function [c1,c2,c3] = prob3(V)  
  
    pares = [];  
    impares = [];  
    for i = 1:length(V)  
        if mod(V(i),2) == 0  
            pares = [pares,V(i)];  
        else  
            impares = [impares,V(i)];  
        end  
    end  
    c1= length(impares);  
    if length(pares) == 0  
        c2 = 0;  
        c3 = 0;  
    else  
        c2 = 1;  
        c3 = 0;  
        iguales = 0;  
        pares = sort(pares);  
        for i=2:length(pares)  
            if pares(i) == pares(i-1) & ~iguales  
                c3 = c3 +1;  
                iguales = 1;  
                c2 = c2-1;  
            elseif pares(i) ~= pares(i-1)  
                c2 =c2+1;  
                iguales =0;  
            end  
        end  
    end  
end
```